

Introducing to You His Majesty—King Peanut

Don't Scorn Him! He Is Becoming More and More Important. Thousands of Acres Now Given Over to Crop

By R. P. CRAWFORD

THE King of Nuts! Surely there is no other nut in all the world that can claim this title, save the peanut. For years it was associated only with the street vendor, but today—a few years later—there is probably no nut with such a wide variety of uses. Hogs and cattle grow fat, vast mills turn thousands of tons of the nuts into a famous oil of commerce, peanut butter has become a staple article, and peanuts have even become one source of flour. The story of how the little nut helped to redeem Southern agriculture is a story by itself. For the last three years, at a very conservative estimate, more than a million and a half acres on an average have been planted to peanuts in this country every year. Last year, 1919, approximately \$80,000,000 worth of the nuts were sold from the farms of this country. Contrast this with \$7,000,000 worth of the nuts raised in 1899, and \$18,000,000 worth in 1909, and one gets some idea of the growth of the industry in this country. More than three times as many acres are devoted to peanuts in this country as twenty years ago, and yet the peanut was one of the earliest crops to be grown in America.

Its products now form articles of world commerce. The manufacture of peanut oil, which was long confined to Europe, is rapidly becoming a flourishing industry here. Most people, especially in the North, do not know that the peanuts themselves are a superior hog feed, and in many sections of the South the hogs are simply turned out to harvest the crop. The trailing vines make a good hay for cattle. Peanut oil cake, another cattle feed, is one of the by-products of the industry.

Did one ever hear of "creamed peanuts on toast" or of peanut bread? A short time ago the United States Department of Agriculture set out to discover some of the uses and food properties of the peanut, and some eye-openers have been the result. As incredible as it may seem, the investigators for the Department of Agriculture, H. S. Bailey and J. A. LeClerc, found that a pound of peanuts furnished 2,700 calories, three times as much as a pound of beefsteak and five times as much as a pound of eggs. In fact, it was ascertained that a pound of whole peanuts contained a half pound of fat and a fourth of a pound of protein. These scientists became so enthusiastic over the possibilities of the peanut that it caused them to characterize it as "one of the most nutritious foods known to man." A satisfactory bread is made by combining peanut flour with wheat flour.

In fact, the story of the peanut is one of the most romantic stories of American agriculture. It now seems to be generally agreed that the peanut is a native of tropical America, probably Brazil. The early American colonists brought some with them, planted them, and gradually developed the famous Virginia peanut. For years it was the custom of practically all plantations to have at least a little patch devoted to the nut. But for the most part, the peanut was still a novelty, being planted mainly for the sake of the children, and as the years went by a few were always harvested for the commercial market for roasted peanuts. But then came the great peanut revival, or rather extension, brought about by the development of proper machinery for harvesting and handling the crop.

Peanuts got their real start in the South due to ravages of the boll weevil on the cotton crop. When a search was being made for a crop to substitute for cotton, the peanut was hit upon. The peanut can often be grown where corn cannot be raised to advantage, since it does well even in the drier sections of the Southwest. Peanuts have been known to yield satisfactory crops where corn did not yield more than five bushels to the acre. Peanuts also have the advantage of enriching the soil the more they are grown, since being a leguminous crop they supply nitrogen.

The peanut is unique in that it ripens beneath the ground. In planting it used to be necessary to open the furrow with a plow or other implement, drop the peanut in, and then cover it with a cultivator or some other implement. Now the work is largely done by means of peanut planters. With these machines the entire planting is accomplished with one operation. In fact, all along the line it has been the development of modern machinery that has brought the peanut to the fore. Formerly in harvesting it was the custom to

pull the plants out by hand or simply use a one-horse plow. Today the larger growers use a machine something like a potato digger. Pulled by four horses, such a machine can dig eight to twelve acres a day. With this method most of the soil is loosened from the peanut, again avoiding much hand work.

The stacks of peanuts scattered over a field are a unique spectacle. First, poles three or four inches in diameter and seven to eight feet long are secured. They are set into the ground a foot or so and made secure. About eight inches from the ground two pieces of lath are nailed crosswise. This prevents the peanuts coming in contact with the ground. The vines are wound around the pole, the pods being kept to the center. A bunch of the vines are pressed down over the top of the stake, or grass or weeds are used to form a secure top over the stack. The peanuts be-

Often common grain threshers fitted with a special cylinder are used for removing the peanuts from the vines. In the case of a typical peanut picking machine, the work is done by pulling the vines over a frame covered with wire mesh. On the lower side of the screen is an endless belt of rubber brushes. As the nuts drop through the screening they are scraped off by these brushes. A good picking machine will handle from two hundred to four hundred bushels every day. The nuts are then ready for market and either are placed in warehouses to await a higher price later in the season, or are sold direct to the numerous factories in the South.

Today peanuts and hogs are synonymous in many localities, and the hogs simply do the harvesting. Sometimes the peanuts are planted between rows of corn. The cattle can then be turned in after the corn is harvested to eat the fodder and peanut tops and the hogs are finally turned in to eat the peanuts. Often successive plantings of peanuts are made at intervals of fifteen to thirty days so that there is a constant supply for the hogs until late in the fall. The hogs are confined to sections of the field by small portable fences. The average yield of peanuts to the acre under fair conditions is about thirty-four bushels in the shell, while a good yield is sixty bushels with a ton or ton and a half of hay an acre. Yields as high as one hundred and fifty bushels, with two tons of hay, have been recorded. The peanut hay for one year had an estimated valuation of approximately \$20,000,000.

There are two principal varieties, the Virginia peanut and the Spanish peanut. The Spanish type averages about 70 per cent kernel while the Virginia type averages only 65 per cent. The Spanish peanuts are usually smaller and are especially well adapted to the manufacture of oil, while the Virginia type are the ones usually used for roasted peanuts. The two are generally combined in the manufacture of peanut butter, since the Spanish nut gives a smoothness, and the Virginia nut a flavor to the product.

The peanut butter industry is one that has come to the front in recent years. In fact, contrary to the general impression, probably less than a fourth of the total crop is sold as roasted peanuts. The peanut butter manufacturer usually secures shelled nuts. The nuts are roasted in machines something like coffee roasters. It generally takes about a half hour to roast a batch of nuts. Then the peanuts are blanched, this being done by machines which have a set of brushes running against a corrugated plate, thus removing the little red skins. The peanuts are then carried over screens through which there is a strong draft of air which removes any small pieces of the skin. Women also pick out any bad or decayed nuts as they are carried along on a long canvas belt. Then the nuts are fed into the grinder. Usually the Virginia and Spanish nuts are used in equal parts, or two or three parts of Spanish to one part of Virginia, a better product being secured when the two varieties are blended. Salt is added as the nuts are ground.

The peanut oil industry is becoming one of the great peanut side lines of the country. For instance, the production of refined peanut oil for the three months ending June 30, 1920, was more than 20,000,000 pounds. Formerly Marseilles, France, was the great center of the oil industry. But today American factories are rapidly challenging the supremacy of the foreign product. In fact, the manufacture of peanut oil in the United States did not begin until about five years ago. Peanut oil may be made either from the unshelled or the shelled nuts. Needless to say, the best oil is made from those that are shelled. The oil is usually secured by pressing the nuts, and after the first pressing a second pressing is made, often with the nuts heated, to secure all of the oil. The second pressing yields a lower grade of oil, usually used for soap. The first pressing yields a good edible oil which can be used for cooking. The residue after the pressing forms a cake which can be used for stock feed. Peanut oil may enter into the composition of the various vegetable margarines and also the lard substitutes.

The possibilities of the King of Nuts have probably just begun to be realized. As with many another article of trade, they are limited only by the ingenuity of the farm and factory.



Above: Revolving drums used for roasting peanuts before being made into peanut butter.

Below: Spanish peanuts, showing the root system. The plant gathers nitrogen from the air and stores it in the nodules on the roots, making the plant a valuable one for the soil.

ing near the center of the stack have a circulation of air and are protected from the inclement weather. Although efforts have been made at various times to improve this method of stacking, most of them have been unsuccessful and this plan has stood the experience of many years.

The peanuts are cured for three or four weeks in the stack before they are picked or threshed. Peanut picking time used to be quite an event in the South, and this arduous duty usually fell to the colored hands about the plantation. But today picking machines are used for this work, doing away with the hand labor.